

1 Q Talking about immune symptoms, you mentioned
2 arthritis and rheumatism, pale and numb fingers, rash on
3 cheeks that last more than a month, rash from sun other
4 than sunburn, pain on taking deep breaths, protein or
5 albumin in urine and sudden hair loss.
6 Are all those items I mentioned immune system
7 symptoms, in your opinion?
8 A Yes.
9 Q And you characterized them that way in your
10 report?
11 A That's correct.
12 Q Which if any of these immune system symptoms
13 would Ms. McNeal have had had she not been exposed to
14 creosote, penta or dioxin?
15 A I don't believe she had those symptoms absent
16 her exposures to the dioxins, the PAHs and penta, and all
17 of those alter the immune system, giving rise to an
18 increased risk for immune system symptoms. And I don't
19 know of any other factor in her risk picture that would
20 contribute to the immune system problems.
21 Q Which of the contaminants you've identified
22 caused or contributed to her immune system? Was it
23 penta? Creosote? Dioxin?
24 A The most well-studied are dioxins. They have
25 been studied extensively for their propensity to disrupt

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1 and cause alterations in the immune system. There is
2 some data with PAHs and penta, but most of the immune
3 system disruption is most likely related to the dioxins.
4 Q Are you able to be any more specific, that is
5 can you tell me whether if Ms. McNeal had been exposed to
6 just penta and not also PAHs and dioxins, she would have
7 the same immune system symptoms or the same severity of
8 her immune system symptoms?
9 A If she had just been exposed to PAHs and penta?
10 Q No, just dioxin and not the others.
11 A I don't know. I think the important point is
12 that these patients -- this patient in particular was
13 exposed to chemicals and the whole mixture and developed
14 these health problems.
15 As I said, I don't know of any other risk
16 factors and it doesn't occur in people who smoke, and
17 doesn't occur in -- I mean immune system dysfunction
18 occurs in the general population but in a low prevalence
19 and I don't know of any other risk factors.
20 Some doctors may say being black there is a
21 slightly increased rate of scleroderma and lupus in
22 blacks. Other studies have not confirmed that. But I
23 have no reason to invoke any causative factor other than
24 her exposure to the environmental pollutants.
25 Q She doesn't have scleroderma or lupus, does

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1 she?
2 A No. I said that's an immune system
3 dysfunction, two diagnoses that have been identified.
4 Q Let's go back for a moment to the neurological
5 symptoms you mentioned on the last page of your report
6 and we'll mark these as exhibits tomorrow.
7 This is page 13 and you list a series of
8 neurological symptoms. Do you see that?
9 A Yes, I do.
10 Q How many of these are based on self reports?
11 A All symptoms by definition are self reports.
12 Q For each one of these plaintiffs, you
13 administered a questionnaire?
14 A That's correct.
15 Q And you did an examination?
16 A That's correct.
17 Q And you reviewed available medical records?
18 A Yes.
19 Q Now, some of the symptoms the plaintiffs
20 reported in their interviews with you and on their
21 questionnaires are not confirmed by medical records; is
22 that correct?
23 A That's correct. There are many symptoms they
24 complain about that are not listed by their doctors in
25 their medical records, correct.

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1 Q Can you tell me which of the neurological
2 symptoms you have listed on page 13 are also reflected in
3 her medical records and which were reported on her visit
4 with you or her questionnaire?
5 A Well, in February 1998, she was seen by Dr.
6 Harrison who diagnosed anxiety and didn't describe any
7 further symptoms, unfortunately. None of the visits
8 relative to her hypertension have really probed for her
9 symptoms of headache, dizziness, lightheadedness memory
10 disturbance and so forth.
11 I don't think there is other mention in her
12 medical reports -- and we have a limited number of
13 records and only Dr. Harrison's records and that's all we
14 have.
15 Q Anxiety is not one of these neurological
16 symptoms that you listed in your summary?
17 A No, I don't think so. We don't ask that
18 question, per se, but let's look and see something. We
19 do have an anxiety index under the profile of mood states
20 and that reveals she has some slight anxiety and not a
21 tremendous amount.
22 Q And what was the doctor's name?
23 A Harrison.
24 Q So is Dr. Harrison a neurologist or just a
25 general internist?

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1 A Judging by the records -- I didn't list his
2 specialty but I would think that he is -- well, the
3 internist or family doctor.
4 Q So she reported as a neurological symptom
5 anxiety to Dr. Harrison?
6 A That's correct.
7 Q And several years later she reported a longer
8 list of neurological symptoms to you in response to her
9 questionnaire and her examination; correct?
10 A That's correct.
11 Q Let's move on to her immune system symptoms.
12 Which of her immune system symptoms have you confirmed by
13 reference to her medical records?
14 A I don't think any of them have been confirmed
15 by her medical records.
16 Q Those are all based on her answers to the
17 questionnaire and her visit with you?
18 A That's correct.
19 Q The next item you have in your summary is
20 cancer. And the two cancers you mentioned are skin and
21 cervical cancer in situ; is that correct?
22 A Yes.
23 Q And both of those were -- correct me if I'm
24 wrong -- identified in medical records at some point; is
25 that right?

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1 A The carcinoma, yes.
2 Q And looking at her dermatology -- this is part
3 of your summary, page 11 of 13 -- it says right axillary
4 lipoma removed by Dr. Harrison. What's a lipoma?
5 A A small benign fatty tumor.
6 Q That's not cancer?
7 A Right.
8 Q Then it says papilloma of neck excised. Do you
9 see that?
10 A Yes.
11 Q Is that a cancer?
12 A No. It's a neoplastic growth but not a
13 cancerous one.
14 Q What type of skin cancer did Ms. McNeal have?
15 A She didn't. She misstated that and it was
16 squamous cell carcinoma of the cervix that got
17 erroneously listed as a skin cancer.
18 Q Do you think the reason she listed it
19 erroneously is squamous cell is also a designation of
20 skin cancer?
21 A Yes.
22 Q What causes squamous cell cancer of the cervix?
23 A There is a virus called human papilloma virus
24 which appears to be a co-factor for the development of
25 cervical cancer, and most patients with cervical cancer

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1 have positive HPV in their cervix, but many patients have
2 it without HPV and do not have cervical cancer. So there
3 has to be a co-factor.
4 Cigarette smoking is identified as a risk
5 factor for cervical cancer, as is exposure to a variety
6 of other chemicals. But the one relevant here is
7 cigarette smoking. PAHs have been found in the cervical
8 mucous and contribute to the risk of cancer in that
9 organ.
10 Q And Ms. McNeal is or was a smoker?
11 A She smoked -- what she said was one cigarette
12 per day.
13 Q Do you think that's right? I wondered if that
14 was a mistake. Was it one pack or one cigarette per day?
15 A She was a one cigarette a day smoker. Like a
16 lot of black woman that I have interviewed in Mississippi
17 and elsewhere, she is not a big smoker and doesn't sit
18 and puff on them all day long and she has one cigarette
19 basically as a social event when she's with friends or
20 family.
21 Q And she began when she was 17 years old?
22 A That's what she said.
23 Q And continued through the present time?
24 A She continues to be what I call a very light
25 smoker.

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1 Q And do you believe her smoking contributed to
2 her cervical cancer?
3 A Yes.
4 Q Do you believe her cervical cancer is also
5 related to exposure of dioxins, penta or PAHs?
6 A I believe it's related to those chemicals, as
7 well, yes.
8 Q So the three factors we have for her cervical
9 cancer are the -- let me ask a foundational question.
10 Does cervical cancer of this nature ever occur
11 in the absence of the human papilloma virus?
12 A I don't recall. It's a high percentage. I'm
13 not sure if a hundred percent and more like 90 percent
14 where cervical cancers occur with HPV positivity.
15 Q And the HPV is the reason women get Pap smears
16 on a regular basis?
17 A No. They get them to detect cancer in the
18 early treatable stage. Patients who do not have HPV get
19 cervical Pap smears done on a regular basis.
20 Q Why is it called a Pap smear?
21 A After Dr. Papanicolaou who invented the smear.
22 Q Fair enough. Just to go back to the question,
23 the three contributing factors we have is the human
24 papilloma virus, the cigarette smoking and exposure to
25 PAHs, dioxins and penta; is that correct?

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1 A Yes.
2 Q Is there any way to separate out for me the
3 extent to which any of the three causative factors
4 contributed to her getting cervical cancer?
5 A Her exposure to the PAHs by the history of what
6 I have, one cigarette a day, would be a small
7 contributing factor. Her dose of PAHs, dioxin and penta
8 are far, far greater risk factors than that one cigarette
9 a day.
10 In fact, in the history of cigarette smoking
11 and cancer, patients that are light smokers usually don't
12 have any significant increase in their cancer risk just
13 from smoking. Assuming she does smoke as light as I'm
14 assuming she did.
15 With the lung cancer risk, you don't begin to
16 see a significant increase in the lung cancer risk of
17 smokers until they get to about 20 pack years, and there
18 is some increase below 20 pack years, but that's when you
19 see the clear separation.
20 So social smokers like this, they don't have a
21 big risk for getting cancer and that would extend I think
22 to the cervical cancer. So even though it's probably a
23 contributing factor on top of her very high exposures
24 that took place in the neighborhood from the plant, the
25 major, major cause is her exposure to the plant.

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1 The HPV is a necessary but not sufficient
2 factor and seems to be a co-factor, increases the risk
3 but by itself may or may not have caused the disease to
4 occur.
5 Q Women who are not exposed to PAH, dioxin and
6 penta do get this type of cervical cancer; is that
7 correct?
8 A Yes.
9 Q And do women get this type of cervical cancer
10 who are not exposed to the HPV virus?
11 A I think I told you my best recollection is it's
12 about 80 or 90 percent of patients with cervical cancer
13 have HPV but not all. And, furthermore, there is a
14 prevalence of patients with HPV who never get cervical
15 cancer, so it's a co-factor but not a hundred percent.
16 In other words, just because you have it, it doesn't mean
17 you'll get the disease.
18 Q We're talking about HPV as sort of a present or
19 not present type of situation.
20 Are there different levels of HPV different
21 women have, different doses?
22 A Different types or different intensity of
23 infection?
24 Q Yes.
25 A I don't have information about that issue.

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1 Q Do you know whether intensity of infection or
2 number of virus molecules per picogram of blood is
3 something that influences the rate that women get this
4 type of cervical cancer?
5 A It probably does. I don't remember the data
6 off the top of my head but it makes sense to me if there
7 is documentation of a heavier viral load, that might
8 increase the risk.
9 Q Viruses act the same way that some of these
10 environmental toxins do, the heavier the dose and the
11 larger exposure the more likely it is that a person will
12 have a negative effect from the virus?
13 A Well, the thing that determines the viral load
14 is the patient's immune system. You're right. If the
15 immune system is impaired, allowing the virus to grow,
16 that means the immune system is probably less able to
17 fight off cancer. So the mechanism of which the
18 increased rate of cancer in a higher viral load would
19 most likely reduce the immune system in that patient.
20 Q Can you tell me, but for exposure to PAH,
21 dioxin or penta if Ms. McNeal would have had cervical
22 cancer?
23 A I don't how you could say that. What we have
24 is a patient in front of us, and she had -- they never
25 did the HPV virus titer on her so we don't know if she

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1 had that -- the but for was absent the exposure to
2 chemicals from Koppers?
3 Q Right. Would she have had cervical cancer?
4 A I think it's unlikely given the fact that the
5 co-factor we've identified is her cigarette smoking. She
6 didn't, as far as I know, have any other exposures that
7 would increase her risk, and we don't know if she has
8 HPV, as far as that goes. I don't know how you can say
9 that she would or would not have cancer absent all the
10 facts here.
11 Q The next item in your summary is respiratory
12 symptoms, including chronic bronchitis, asthma -- it's on
13 page 13 for your summary of Ms. McNeal.
14 A Right.
15 Q Which of these respiratory symptoms do you
16 believe are related to her exposure to PAH, dioxin or
17 penta?
18 A I believe all are related to her exposure to
19 the chemicals here.
20 Q Were they all caused by the exposure to the
21 chemicals or contributed to by the exposure to chemicals?
22 A The only risk factor we have here for the
23 respiratory symptoms is her cigarette smoking, which we
24 indicated is quite minimal. You know, I think we should
25 probably look at the other doctors' histories about the

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1 cigarette issue because I think it would help us.
 2 Q Do you have that handy?
 3 A I don't know if I can find it quickly. Dr.
 4 Sawyer did a history and let's see --
 5 Q Is this Dr. Sawyer's report?
 6 A No, Dr. Wilson. Dr. Sawyer didn't have any
 7 comment about the cigarettes.
 8 Q Did Dr. Wolfson examine Ms. McNeal?
 9 A Yes. The blood pressure was 174 over 84. I
 10 don't see a comment about cigarettes and -- there it is.
 11 Ms. McNeal smoked for 32 years, starting at age 18, and
 12 she continues to smoke one pack per day and tried to stop
 13 smoking with use of nicotine patches without success.
 14 Her husband is a 2-pack a day smoker since age 16 and
 15 stopped at age 55 in November 2004.
 16 So when she wrote one, she meant one pack a day
 17 and my comment about her cigarettes would have to be
 18 modified.
 19 Q Sure, absolutely.
 20 MR. LUNDY: This is her deposition summary?
 21 THE WITNESS: Yes. There is a lot of smoking
 22 history in her deposition.
 23 BY MR. HOPP:
 24 Q This summary is compiled by whom?
 25 A I think Mr. Lundy's firm, one of their

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1 employees.
 2 MR. HOPP: Now that you've shown it, I'd like
 3 to make a request for a copy.
 4 MR. LUNDY: He hadn't read it and he'll not
 5 rely on it. He can rely on the other doctors' stuff.
 6 BY MR. HOPP:
 7 Q She's obviously also got a
 8 significant secondhand smoke exposure?
 9 A From her husband, yes.
 10 Q That's going to contribute to the development
 11 of cervical cancer; correct?
 12 A Yes, that's correct.
 13 Q And it's also going to contribute to the
 14 development of respiratory symptoms?
 15 A Definitely.
 16 Q Is there any way you can separate out her 26 or
 17 more year pack history --
 18 A Pack year history.
 19 Q Her 32 pack year history from her creosote,
 20 penta or dioxin exposure with respect to her respiratory
 21 symptoms?
 22 A I would say they're both contributing
 23 significantly. I don't think we can put a percentage on
 24 it or even -- I think both contributed significantly to
 25 it. That's based on what we've found in our earlier

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1 study in Columbus, and what we see in this group, as
 2 well, that respiratory problems are a big problem
 3 associated with living under these conditions, but we
 4 also know that patients developed bronchitis and
 5 shortness of breath and other respiratory symptoms from
 6 cigarette smoking, as well.
 7 Q It's not really possible for you to say that
 8 she'd have these identical respiratory symptoms had she
 9 never lived in the Carver Circle area; correct?
 10 A I wouldn't want to opine on what would have
 11 happened under those theoretical circumstances.
 12 Q I think you answered this, but would it
 13 surprise you if someone presented with a 32 pack year
 14 history and also had the respiratory symptoms listed for
 15 Ms. McNeal on page 13 of 13 on your summary?
 16 A Would it surprise me to have all these symptoms
 17 if a 32 pack year smoker?
 18 Q Yes.
 19 A Well, let's get more detail. According to my
 20 history which, by the way, is in my handwritten notes --
 21 Q Which you've produced?
 22 A Yes. She started with her asthma ten years
 23 before and was using 3 inhalers and two pills.
 24 Q Ten years before what?
 25 A Ten years before this examination and was

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1 experiencing significant shortness of breath in recent
 2 years. That history is more characteristic of an
 3 asthmatic patient.
 4 It's true that probably the cigarettes would
 5 contribute to that but clearly her health condition
 6 changed about ten years prior to the examination,
 7 significantly, requiring her to go on all those
 8 medications, and I think, you know, that's a significant
 9 factor and is very common with patients that we've seen
 10 living closer to these wood treatment plants and develop
 11 a picture like this.
 12 Usually a cigarette smoker, they gradually get
 13 worse and don't develop classical asthma-type symptoms
 14 and usually don't present in this way and it's usually a
 15 gradual buildup, and hers is more like something damaged
 16 her lungs in a more acute basis and what it was, I'm not
 17 sure. I wouldn't put her in the category of a typical
 18 smoker in terms of her history.
 19 Q Are you prepared to render an opinion as to
 20 what her clinical picture would look like for respiratory
 21 symptoms had she not lived in the Carver Circle area?
 22 A Well, I think I can say without fear of
 23 contradiction that she'd have less respiratory problems
 24 if she didn't live there.
 25 Q How much less?

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1 A I don't know a number.
2 Q And you don't know how to take symptoms either
3 on or off the list based on living at Carver Circle;
4 correct?
5 A In terms of respiratory symptoms?
6 Q Yes.
7 A Most patients with cigarette smoking don't
8 complain of eye irritation and reduced sense of smell.
9 They can have some of the other symptoms but those are
10 not typical of a cigarette smoker. So I think they're
11 fairly typical of our patients in Columbus and here, so I
12 believe that those things are probably related to the
13 exposure.
14 Q Is it your testimony that cigarette smokers
15 don't have a reduced sense of smell?
16 A They don't complain about a reduced sense of
17 smell in my experience.
18 Q Let's move on to the next series of symptoms,
19 the dermal symptoms, page 13 of 13 of your summary.
20 She complains of skin redness, dryness, itching
21 and rash on cheeks lasting for more than a month. Which
22 if any of those symptoms are related to her exposure to
23 PAHs, dioxins and penta?
24 A I think I already indicated I don't see any
25 reason why she would have any skin problems. Cigarette

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1 smoking doesn't do it and exposure to these chemicals
2 does, and I don't see any other contributing factor to
3 her skin complaints.
4 Q Don't some people just have red, dry skin?
5 A Not most black people.
6 Q So it's your opinion that the skin redness,
7 dryness and itching and rash were all caused by exposure
8 to PAHs, dioxin and penta?
9 A There are patients and even blacks that have an
10 unknown cause for their skin complaints, and they do
11 occur, but in this case I don't have any known other
12 causes, and we do know these chemicals have an effect on
13 the skin, particularly the creosote and naphthalene and
14 other particulates that dry and defat the skin.
15 Q The studies of creosote and naphthalene and
16 drying, those all looked at the application of creosote
17 to the skin; is that right?
18 A Yes.
19 Q But that's a transitory effect?
20 A No. The studies done even by the creosote
21 industry show these skin changes are permanent.
22 Q In humans or animals?
23 A Humans.
24 Q What studies?
25 A Early studies that were done and they called

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1 them creosote warts and called the photosensitivity a
2 creosote-induced problem and the dry, itchy skin was
3 definitely a permanent effect.
4 Q Those were studies of workers?
5 A That's correct. And we found the same thing in
6 our studies of the residents living near the creosote
7 plant in Columbus, Mississippi.
8 Q Dry and itchy skin?
9 A Yes, a very common complaint.
10 Q Ms. McNeal didn't have a creosote wart, did
11 she?
12 A No.
13 Q And did you examine her skin for defatting?
14 A I did not notice any defatting of her skin and
15 this was a subjective complaint and you can't measure
16 defatting in any way I know of or observe it. It's
17 drying of the skin that's reported.
18 Q As you sit here now, do you remember whether
19 her skin looked scaly and dry?
20 A No, I don't recall.
21 Q And the next sentence on page 13 and 13 says
22 that Ms. McNeal's above-noted health problems have been
23 caused by exposure to chemicals from Koppers.
24 Now, the summary of problems we see on page 13
25 of 13 in your report are all of the problems you

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1 attribute to Ms. McNeal -- all of the problem for Ms.
2 McNeal that you attribute to her exposure to PAHs, penta
3 and dioxin?
4 A Yes.
5 Q We covered everything with Ms. McNeal?
6 A Yes.
7 Q What sorts of problems would you expect of
8 someone who had severe hypertension and smoked a pack of
9 cigarettes a day to have? Do the two factors working
10 together cause any sorts of health effects?
11 MR. LUNDY: Other than what he testified to
12 twice?
13 BY MR. HOPP:
14 Q Irrespective of chemical exposure. First,
15 severe high blood pressure and smoking a pack a day who
16 doesn't live near a creosote plant, what sort of problems
17 would you expect that person to have?
18 A Cardiovascular problems, increased rate of
19 heart disease, stroke, and she's got heart disease and
20 congestive heart failure, which is not surprising. She's
21 got diabetes, which I guess is reasonably well
22 controlled, but she has cardiovascular disease and from
23 smoking I would expect her to have respiratory problems
24 as we've stated. Her glucose when I saw her was 159 and
25 she has mild diabetes.

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1 Q I want to get -- and I'm not sure if there is
2 an answer to this or even studied. Smoking is risky
3 behavior and high blood pressure is a general health
4 problem. Have there been any studies that demonstrate
5 what additional problems a person with high blood
6 pressure would have if she smoked?
7 A Well, the smoking and the high blood pressure
8 together increase the risk of cardiovascular disease.
9 Q And you testified about that. Anything else
10 you can think of?
11 A No, that's the main thing.
12 Q Let's move on to Kay Hobbs --
13 A As to Patricia McNeal -- I want to refer to Dr.
14 O'Jile's report. She found that she had problems,
15 cognitive impairment, low intellectual functioning,
16 abnormal neurologic tests, similar to what I found.
17 You want to go to who --
18 Q I know you referred to Dr. O'Jile, and I want
19 to explore that thought, have you formed any additional
20 opinions with respect to Patricia McNeal after reviewing
21 Dr. O'Jile's report or do the reports support what you
22 previously --
23 A They support what I previously stated.
24 Q Kay Hobbs. I'd like you to generally summarize
25 your opinions with Kay Hobbs.

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1 A In terms of her exposure or health effects from
2 the exposure?
3 Q In terms of health effects from the exposure.
4 A Well, she has a picture very similar to Ms.
5 McNeal. She has neurologic, respiratory, autoimmune skin
6 problems and they share a great deal, as many of these
7 patients we will see do.
8 Q The difference with Kay Hobbs is she's deceased
9 -- or one of the differences?
10 A We're talking about the health problems she had
11 during life, if you will. Her husband filled out the form
12 for her. She was diabetic also and other significant
13 respiratory problems. She was a non-smoker and she had
14 obviously breast cancer that metastasized to her lung and
15 brain.
16 The breast cancer was diagnosed in 1998 and we
17 have -- she died of breast cancer at the age of 43,
18 diagnosed at age 41. Her sister died a year before, at
19 the age of 34, Sherrie Barnes. She lived in Carver
20 Circle between 1956 and 2000, basically all of her life,
21 and was married in 1974 at the age of 18, and her father
22 worked at Koppers and then Heathcraft, and I believe
23 those are the factors caused by her exposure.
24 Q So diabetes and breast cancer?
25 A Well, I think the diabetes -- I didn't mention

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1 that with Patricia McNeal, and it wasn't a major part of
2 her problem and not a major part of this patient's
3 problems, but we know there is an increased risk in
4 diabetes in patients with dioxin exposures and that's a
5 contributing factor to her health problems. In her case
6 the major thing is the breast cancer.
7 Q What are the other potential causes of breast
8 cancer? What else causes breast cancer?
9 A Well, there is now data that shows breast
10 cancer is increased in cigarette smokers.
11 Q Very recent data?
12 A The last several years. There's animal data to
13 show the PAHs cause breast cancer, and there is evidence
14 that the birth control pills can increase the risk of
15 breast cancer.
16 I'm not aware of any other factors, and there
17 has been some attempt to find viruses that might increase
18 the risk, but those have not panned out, and the primary
19 thinking about breast cancer causation is it's due to
20 endocrine disruption, and the breast cancer rate is
21 skyrocketing in the last 40 years in this country, and
22 it's felt to be due to the introduction into our
23 environment of endocrine destructors such as PCBs,
24 dioxins and other chemicals of that type.
25 I think her exposures are really quite -- you

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1 know, it's classically related to the environment. The
2 most striking thing is the early age that she and her
3 sister both contracted this disease, and it's not like
4 she had aunts and -- let me see if I can find what I'm
5 looking for -- I'm trying to see her family history and I
6 have to refresh my memory.
7 She did not have any other family members with
8 breast cancer, except her sister. There was her father,
9 I guess, the one who worked in the Koppers plant that
10 developed lung cancer, and there is one other cancer in
11 the family but I'm not sure who it was. Anyway, she
12 doesn't have a family history of breast cancer, except
13 she and her sister so that risk element is not present.
14 Q The family history has been identified as a
15 risk factor for breast cancer, right?
16 A That's just what I've been saying. But she
17 didn't have that.
18 Q I've seen an indication in one of the records,
19 and I'm not sure if this is accurate, that her father had
20 male breast cancer. Does that strike a cord with you?
21 A I have it listed as lung.
22 Q We can look for it and talk about it tomorrow.
23 Does secondhand smoke increase the risk of
24 breast cancer?
25 A Probably.

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<p>1 Q But for living where she did, would Kay Hobbs 2 have developed breast cancer?</p> <p>3 A Well, I think it's unlikely that she would have 4 at this young age developed breast cancer. It's because 5 I think the environment she grew up in and lived in was 6 heavily, heavily polluted with potent carcinogens and 7 that's what led to her very aggressive tumor at a very 8 young age.</p> <p>9 I mean, it's quite unusual to have cancer at 10 this young age, and her sister had it even at a younger 11 age and it's unusual to have it at this young age, which 12 in itself is suggestive or indicative of high levels of 13 exposure to carcinogens.</p> <p>14 Q I want to point something out and drill it down 15 a bit. I asked you whether Ms. Hobbs would have 16 developed breast cancer had she not lived near the 17 Koppers plant and your response took into consideration 18 her age when she developed breast cancer.</p> <p>19 Had she lived --</p> <p>20 MR. LUNDY: I'll object to the form of your 21 question, the characterization of his response. I think 22 his response was it's highly unlikely. I think you have 23 to quote him that she would have had cancer but for the 24 environmental factors --</p> <p>25 MR. HOPP: That's where I want to go.</p> <p style="text-align: right;">145</p>	<p>1 studies we've done have corroborated.</p> <p>2 In other words, the finding of a very 3 carcinogenic environment with the testing and then 4 finding patients like Ms. Hobbs living in the midst of 5 this very dangerous environment, it's not surprising that 6 she got cancer at an early age that was very resistant to 7 treatment and died very quickly with metastatic disease.</p> <p>8 This is all important for understanding why 9 this environment needs to be remediated immediately.</p> <p>10 Q And, again, I apologize if you answered or 11 think you answered it and I didn't understand it.</p> <p>12 If Ms. Hobbs had not lived near the Koppers 13 plant, would she have developed breast cancer at all 14 ever?</p> <p>15 A I can't say one way or the other. I indicated 16 that it's likely since there is no risk factor for 17 developing breast cancer. If she developed any type of 18 cancer, it's more likely like the general population at a 19 much older age, but I'm not saying she would have. There 20 is no way of saying that.</p> <p>21 Q Can you say whether Ms. Hobbs developed breast 22 cancer at an earlier age than she might have otherwise, 23 as a result of her exposure to creosote, penta and 24 dioxins?</p> <p>25 A And I'll say it the fourth time, there are no</p> <p style="text-align: right;">147</p>
<p>1 Q Had Ms. Hobbs lived longer, do you know whether 2 she would have developed breast cancer irrespective of 3 her exposure to the Koppers plant?</p> <p>4 A I have no way of knowing that.</p> <p>5 Q Is it your opinion that Ms. Hobbs developed 6 breast cancer at an earlier age than she would have or 7 might have otherwise as a result of her exposure?</p> <p>8 MR. LUNDY: Objection; that's ignoring his 9 previous response that he wouldn't know and so I object 10 to the form of the question.</p> <p>11 BY MR. HOPP:</p> <p>12 Q I'll let the witness clarify his opinion.</p> <p>13 A She has no risk factors for developing breast 14 cancer, except for her exposures in the neighborhood. I 15 think the point is there is a risk factor for cancer in 16 general of age. After the age of 60, the rate of cancer 17 of all types increases significantly in the United 18 States. We have no way of saying that she might have 19 developed it when she was 70 or 80 years old.</p> <p>20 She has no risk factors for that and it's not 21 an opinion I would hold that she would have, but the 22 point is, in addition to the fact that she developed this 23 tumor at an unusually early age, and her sister even 24 earlier is indicative to my way of thinking of a highly 25 carcinogenic environmental, which all the numbers and</p> <p style="text-align: right;">146</p>	<p>1 other risk factors for breast cancer in this patient.</p> <p>2 MR. HOPP: Read back the question.</p> <p>3 (Record read.)</p> <p>4 BY MR. HOPP:</p> <p>5 Q I don't understand how your answer is 6 responsive to the question. Can you explain --</p> <p>7 A I think the cause of her breast cancer was the 8 exposure. I thought that was clear. I'm trying to be 9 clearer.</p> <p>10 Q If her father had breast cancer, would that be 11 enough of a family history for you to believe that her 12 family history might have contributed?</p> <p>13 A That's not what the data and the literature 14 shows. It shows increased risk associated with female 15 family members. I don't know of any data that shows that 16 male breast cancer is related in any way to higher risks 17 in the daughters.</p> <p>18 But remember, I think this is a father who 19 worked in Koppers plant and he had all the risk factors 20 that she had, and if it was -- male breast cancer is as 21 rare as hen's teeth, and for him to have that is in 22 itself remarkable and suggests why did he have breast 23 cancer. I would think the answer is because he worked at 24 Koppers and had all the exposures to increase the risk of 25 mammary cancers.</p> <p style="text-align: right;">148</p>

1 Q Would there also be a genetic predisposition of
2 that?
3 A I'm not aware of any data to suggest that male
4 breast cancer is associated to genetic factors. Unlike
5 female breast cancer where there is some familial
6 aggravation.
7 Q You indicated male breast cancer is very rare.
8 Is it studied much?
9 A No, as a result of it being rare.
10 Q Let's move on to Derion Griffin.
11 A I looked at Dr. Wolfson's report on Kay Hobbs
12 and it confirms what I have stated, that there is no
13 other risk factors for the development of breast cancer.
14 Who is next?
15 Q Derion Griffin.
16 A I'm here. He's the little boy that's 9 years
17 old with hydrocephalus.
18 Q And what are your opinions with respect to the
19 medical conditions or symptoms that Derion Griffin has as
20 a result of exposure to PAH, dioxins and penta?
21 A Well, he has got, in addition to his
22 hydrocephalous, some of the same symptoms we saw in the
23 other two patients. Neurological symptoms, respiratory
24 symptoms, immune system problems, although limited just
25 to allergies in his case.

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1 He has skin problems and, as I say, the most
2 important is his hydrocephalous which is a developmental
3 problem that I believe is a birth defect that he obtained
4 from exposure to these various agents.
5 Q Would it be fair to characterize Derion Griffin
6 as mentally retarded?
7 A Let's see what Dr. O'Jile said about his mental
8 functioning. I think she did test him. She has got a
9 detailed history of his gestation early years. She felt
10 he was moderately to severely impaired and she felt that
11 was superimposed on a background of extremely low
12 intellectual functioning.
13 He has deficits in adaptive functioning and
14 areas where he did better, and some areas of relative
15 strength, including general fund of information,
16 vocabulary and simple attention, assembling puzzles and
17 receptive vocabulary and drawing of simple figures, gross
18 psycho-motor speed and calculation and with continued
19 supervision throughout his life and given his functioning
20 levels, expectations regarding his education and
21 occupational abilities are low.
22 In your answer to your question, he appears to
23 be at a level where his ability to function in the labor
24 market and to benefit from education is very, very
25 limited.

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1 Q Do you remember meeting Derion Griffin?
2 A No.
3 Q Do you remember whether he was able to respond
4 to your questions in order to fill out the questionnaire
5 that you administered?
6 A No. He was not able to do that.
7 Q And his mother did that for him?
8 A Yes, and also gave the history.
9 Q And just going back to Kay Hobbs, obviously she
10 is deceased and her husband filled out the questionnaire?
11 A I have Walter Hobbs, and I believe that's the
12 husband.
13 Q Are you aware of any literature that is
14 published on the reliability of health status
15 questionnaires when they're filled out by someone other
16 than the patient?
17 A Well, with children and this young man, even
18 though he's 9, and some 9-year-olds can fill out
19 questionnaires but usually a normal 9-year-old gets a lot
20 of help from his parents and some adult or older child.
21 Children don't give reasonable questionnaires
22 until probably up to 12, 14, 15 depending on the skill
23 level of the child and understanding the process. I'm
24 not surprised by his inability to fill it out.
25 Now, in terms of reliability, I'm not aware of

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1 any peer-reviewed study that directly answered that
2 question, and, from my own experience, I think what I
3 found is the mothers tend to be reasonably good observers
4 of their children.
5 However, in this case, the mother has got a
6 problem with memory herself because she lives in the
7 environment and there are a number of discrepancies
8 between what she said on different occasions about her
9 son. That's I think reflecting her low functioning level
10 in terms of memory and integration of data.
11 I think if we were to ask the question does
12 this young man have a neurological problem, I don't think
13 anybody would argue he does. Somebody who had
14 hydrocephalous and a shunt placed frequently have
15 problems with cognition and development of the brain.
16 He has apparent respiratory problems and he's
17 complained about it and has been treated for it. Let me
18 see if I got what I -- the medical records here. It's
19 mainly focused on the neurologic, but he had pulmonary
20 hemorrhages, which is, I guess, another health problem
21 diagnosed in 1995.
22 When he was born he had to be intubated and
23 he's been on theophylline which is a medicine for
24 respiratory problems like asthma. So there is some
25 objective backing in the records of health problems of

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<p>1 the type the mother describes, albeit somewhat limited.</p> <p>2 Q The question, though, went towards the</p> <p>3 reliability of her responses, and you'll admit, will you</p> <p>4 not, that when someone's medical history is filtered</p> <p>5 through another person, there is a risk of some</p> <p>6 discrepancies in the data that's unreliable?</p> <p>7 A I'd agree. But the important point here is</p> <p>8 when we look at this patient in the context of all the</p> <p>9 other patients we see, when she says he has cough and</p> <p>10 brings up phlegm and sometimes he has -- what does she</p> <p>11 describe here -- sinusitis, it tends to be credible</p> <p>12 because we can see it in the context of all the other</p> <p>13 people in the neighborhood who have similar complaints</p> <p>14 and due to the heavy contaminations in these homes, it's</p> <p>15 not surprising the people have these complaints.</p> <p>16 So taking all the factors into consideration, I</p> <p>17 think it becomes reasonable to believe -- I mean she</p> <p>18 doesn't answer all the questions as abnormal, and she has</p> <p>19 many she claims he never had on the questionnaire, and at</p> <p>20 least internally and externally putting it all together,</p> <p>21 it's consistent with the pattern that we're seeing in</p> <p>22 this group of people.</p> <p>23 Q At least in Derion Griffin's case you can look</p> <p>24 at his medical records and find out what his measured</p> <p>25 problems are; correct?</p> <p style="text-align: right;">153</p>	<p>1 A 40.</p> <p>2 Q 40 weeks gestation?</p> <p>3 A Yes.</p> <p>4 Q How many weeks gestation did Derion Griffin</p> <p>5 have?</p> <p>6 A Well, it's estimated that he had about 22 to 24</p> <p>7 weeks of gestation. That's the estimate.</p> <p>8 Q What's the general survival rate of an infant</p> <p>9 born at 22 weeks' gestation?</p> <p>10 A Very poor. I don't know the statistics but</p> <p>11 most of the children born that small don't make it.</p> <p>12 Q It's amazing he's alive at all, isn't it?</p> <p>13 A It's quite a tribute to the skills of the</p> <p>14 neonatologist. He was in the hospital for 92 days.</p> <p>15 Q Immediately following Derion Griffin's birth,</p> <p>16 do you know how much time he spent without any medical</p> <p>17 care?</p> <p>18 A After he left the hospital?</p> <p>19 Q After he was born. Didn't they think he was</p> <p>20 dead for a while?</p> <p>21 A They said earlier they intubated him right</p> <p>22 away, and he was not breathing and had to breathe for</p> <p>23 him. He weight a pound and 11 ounces. He was under two</p> <p>24 pounds and a very, very small baby.</p> <p>25 Q Do you know how long a time lag there was</p> <p style="text-align: right;">155</p>
<p>1 A Yes.</p> <p>2 Q But the question was broader and deals with Kay</p> <p>3 Hobbs and Derion Griffin --</p> <p>4 A Remember Derion was born prematurely --</p> <p>5 Q I will ask you that in a minute and let me</p> <p>6 finish the question. With respect to Kay Hobbs, her</p> <p>7 husband filled out the form?</p> <p>8 A Yes.</p> <p>9 Q And she's been dead for 5 years or so -- for 4</p> <p>10 years by the time he filled out the form?</p> <p>11 A Yes.</p> <p>12 Q And there is a concern that when someone else</p> <p>13 fills out the form that some data gets lost and some</p> <p>14 questions may be answered inaccurately?</p> <p>15 A I think that's a fair statement.</p> <p>16 Q With respect to Derion, he has a list of</p> <p>17 medical records which you relate back to, it sounds like,</p> <p>18 primarily to his hydrocephalous?</p> <p>19 A Hydrocephalous was sort of his ongoing</p> <p>20 diagnosis but remember he had a very stormy entrance into</p> <p>21 life.</p> <p>22 Q Let's talk about that. He was -- let me ask a</p> <p>23 foundational question.</p> <p>24 How many weeks is considered term for an</p> <p>25 infant?</p> <p style="text-align: right;">154</p>	<p>1 between the time Derion was actually delivered and when</p> <p>2 intubated?</p> <p>3 A No, I don't have -- his APGAR score was 1 so</p> <p>4 that means he was not breathing and they had to</p> <p>5 resuscitate him. Obviously they resuscitated him, and</p> <p>6 how long he was lying pulse-less or not breathing, I</p> <p>7 don't know.</p> <p>8 Q Do you know how long it was between the time</p> <p>9 Derion was born and the time he was air-lifted to another</p> <p>10 hospital for special care?</p> <p>11 A It only says he was taken and I don't have</p> <p>12 minutes or duration of the treatment at the local</p> <p>13 hospital.</p> <p>14 Q Are you in a position to give opinions with</p> <p>15 respect to the effect that Derion's medical care in the</p> <p>16 first hours of his life had on his condition later in</p> <p>17 life?</p> <p>18 A It seemed to me that it was a miracle that he</p> <p>19 survived so his medical care couldn't be too bad. If</p> <p>20 you're asking if they didn't intubate him quickly enough</p> <p>21 and allowed anoxic injury to occur due to malpractice, I</p> <p>22 don't have an opinion about that. There's nothing in the</p> <p>23 record to suggest that they did anything other than the</p> <p>24 best that they can do for this baby.</p> <p>25 Q I would never suggest otherwise, but do you</p> <p style="text-align: right;">156</p>

<p>1 know whether there was an injury that Derion sustained -- 2 leaving malpractice out of this completely -- whether 3 there was an injury he sustained because of a lack of 4 oxygen after his birth due to the fact that he was not 5 intubated quickly? 6 A It says he had apnea of prematurity, and he was 7 not breathing because he was so premature and his 8 breathing mechanisms were not working and I don't know 9 how many minutes it was -- 10 Q You're reading Dr. Wolfson's summary? 11 A Yes. My summary doesn't have any information 12 about that either. I mean, I just don't know what to 13 tell you. 14 Q That's fair. But you're not taking that issue 15 into account with respect to your opinions? That is 16 you're not factoring in the notion that he might have 17 been caused an injury by the failure of the medical staff 18 to intubate him early in life? 19 A There is no question that he had anoxia and 20 that he was not breathing. How many minutes without 21 oxygen is not clear from the record. Very premature 22 babies like this do, in fact, have anoxia by definition 23 and getting the oxygen into the blood stream so they 24 survive when separated from the mother is very important. 25 If there is a prolonged period of anoxia that can cause</p> <p style="text-align: right;">157</p>	<p>1 Q Why was Derion Griffin born prematurely? 2 A Well, there is a powerful risk factor which we 3 know about and that's his exposure to PAHs. Some very 4 elegant studies have now been done by Dr. Perera on PAH 5 levels in the cord blood and small gestational age could 6 occur and apply here and also prematurely. That's the 7 mechanism that cigarette smoking mother have smaller 8 babies is because of the PAHs in cigarettes. 9 They've now shown that PAHs in the environment 10 -- Dr. Perera's studies of babies in Poland, which has a 11 lot of PAH contamination, showed a very strong 12 correlation of the PAH content of the mother and the 13 prematurity of the baby, and I think in this case we have 14 a strong link to PAH levels present in Ms. Griffin, 15 Derion's mother, and the development of this premature 16 baby. 17 Q The mother is Jennifer Griffin; right? 18 A Yes. 19 Q Do you know how many other pre-term babies 20 Jennifer Griffin had? 21 A Her other child Rahaeem was 7 months' gestation 22 and born two months early and weighted 5 pounds and was 23 not nearly as premature or as small as the brother. 24 Q Do you know how many full-term babies Jennifer 25 Griffin has had?</p> <p style="text-align: right;">159</p>
<p>1 permanent brain damage. But I have no reason to know 2 that happened or didn't happen. 3 I think there was also the question of 4 hemorrhages at the time of birth and definitely a 5 pulmonary hemorrhage, but I think there was also a 6 question about bleeding into the brain, which is common 7 in these children. 8 One of the children we saw in Columbus, 9 Mississippi was very premature like this, and he had 10 pulmonary hemorrhage that resulted in severe mental 11 changes. Very premature babies like this generally have 12 a lot of problems and one of them is anoxia and one of 13 the mechanisms by which they get problems. 14 Q I understand your answer but I need to go back 15 to my question. 16 Is it accurate to say that you're not taking 17 into account for the purpose of your opinions any 18 knowledge or assumption with regard to how long Derion 19 went without intubation after he was born? 20 A As I said, I don't have any information how 21 many minutes it was. 22 Q And you assume he received the appropriate 23 medical treatment for a baby his size and age? 24 A I believe so, yes. I believe they tried their 25 best to do what they could for this baby.</p> <p style="text-align: right;">158</p>	<p>1 A No. I don't have that information in front of 2 me. 3 Q If Jennifer Griffin was heavily exposed to 4 PAHs, would you expect all her babies to be born 5 prematurely? 6 A It depends on the dose she sustained during the 7 pregnancy and other factors, such as nutrition and other 8 factors, so she could have a normal term baby. 9 Q Are there other factors besides PAHs which 10 would contribute to Ms. Griffin for not carrying babies 11 to full term? 12 A Well, she certainly was not old and she was 23 13 when she had Derion and age is not a factor. She's not a 14 drinker -- well, she may be -- I don't have her history 15 here. I have Derion's history. So I would have to say 16 that there may be some contribution from other factors 17 but I have not got them identified here at this point. 18 Q Is narcotics abuse a risk factor for delivering 19 pre-term babies? 20 A By narcotics I guess you mean heroin? 21 Q More cocaine or amphetamines. 22 A Cocaine is a risk factor for having premature 23 babies. Amphetamines, I don't know if it is or not. 24 Q What other risk factors are there generally for 25 pre-term babies?</p> <p style="text-align: right;">160</p>

<p>1 A Smoking cigarettes, heavy drinking, alcohol, 2 probably drugs, if abused, probably would be on that 3 list, cocaine being one associated with problems of early 4 delivery and small babies. I'm not recalling off hand 5 other risk factors and I'm sure there are others. Older 6 mothers, and a family history of reproductive problems, 7 some kind of genetic factors that play a role. That's 8 all I can think of at the moment.</p> <p>9 Q Are even some young women genetically 10 predisposed to deliver early?</p> <p>11 A Well, with the family history of say the 12 mothers, sisters, aunts, grandparents and the mother 13 having a history, it could be suggestive of a genetic 14 effect and it can effect a younger woman.</p> <p>15 Q Ms. Griffin's medical records indicate that she 16 had a very early pregnancy of her first, which was 17 terminated either spontaneously or otherwise?</p> <p>18 A Correct.</p> <p>19 Q Spontaneous or an intentional abortion and 20 we're not sure which; is that right?</p> <p>21 A As I understand it, it was probably an induced 22 abortion but it might have been spontaneous. I'm not 23 certain.</p> <p>24 Q In any event, having an abortion at a very 25 young age -- I believe she was in her early teens --</p> <p style="text-align: right;">161</p>	<p>1 consequence of severe prematurity in and of itself.</p> <p>2 Q Any others?</p> <p>3 A No.</p> <p>4 Q Now, we've described Derion many time as 5 hydrocephalic; correct?</p> <p>6 A Correct. That's a diagnosis made early on in 7 his life.</p> <p>8 Q In layman's terms, what does that mean?</p> <p>9 A It means there is a blockage to the drainage of 10 the fluid in the brain, and they have to put a shunt in 11 to relieve that pressure to create an artificial relief 12 valve so that the fluid in the brain doesn't build up and 13 create the condition known as hydrocephalous, which is 14 water on the brain, and if that blockage occurs and is 15 not treated, the head becomes very large and squeezes the 16 brain and becomes severely retarded.</p> <p>17 Q It's the actual physical squeezing of the brain 18 down towards the opening of the base of the skull which 19 causes the retardation; is that right?</p> <p>20 A Well, the pressure of the whole brain prevents 21 the growing and developing process.</p> <p>22 Q It's a physical insult to the brain?</p> <p>23 A It's a physical problem and it's solved by 24 putting the shunt in.</p> <p>25 Q Now, we began by talking about Derion Griffin's</p> <p style="text-align: right;">163</p>
<p>1 would that predispose someone to have pre-term babies 2 later?</p> <p>3 A No.</p> <p>4 Q Is there any epidemiological literature that 5 you're aware of on the effect of an abortion at a young 6 age on later pregnancies?</p> <p>7 A I think there is a study there that suggests 8 that there is an increased risk but I don't think it's 9 been borne out. I think there are many other studies 10 that suggest that is not true.</p> <p>11 Q Let's assume that Ms. Griffin did not have any 12 PAH or dioxin exposure and yet delivered a baby at 27 13 weeks --</p> <p>14 A 22 to 24.</p> <p>15 Q 22 to 24 weeks, what health problems would you 16 expect a baby who is born at that early a gestational age 17 to have, irrespective of PAH and dioxin exposure?</p> <p>18 A Just the prematurity alone increases their risk 19 for developing developmental problems, achieving at 20 school and developing the brain to its full maximal 21 capacity, and they're more prone to various respiratory 22 problems.</p> <p>23 Q So intellectual achievement and respiratory 24 problems?</p> <p>25 A Those are the two that come to mind as a</p> <p style="text-align: right;">162</p>	<p>1 health problems being related to PAH exposure, and I want 2 to make sure we've completed that.</p> <p>3 We talked about neurological problems and 4 respiratory problems. Are there any other problems that 5 Derion Griffin has that you believe are related to PAHs, 6 dioxins or penta?</p> <p>7 A I think I've indicated that he's got a picture 8 similar to the other people living in the neighborhood, 9 respiratory, skin, neurologic problems, and in addition 10 to the extreme prematurity, he's been insulted by 11 additional exposures during early life in living in this 12 environment.</p> <p>13 Q On page 9 of 9 of your summary of Derion 14 Griffin, you identify dermal problems?</p> <p>15 A Yes, as reported by his mother.</p> <p>16 Q Are those related to the Koppers plant?</p> <p>17 A I believe so. I didn't identify any other 18 reason for the skin problems.</p> <p>19 Q Do you think he'd have skin problems but for 20 exposure to the Koppers plant or the PAHs, dioxins and 21 penta?</p> <p>22 A There is no reason to think otherwise and there 23 is no other exposure to skin irritation, skin altering 24 materials, and he has sort of a nonspecific skin 25 complaint similar to what we've seen in our studies in</p> <p style="text-align: right;">164</p>

<p>1 Columbus and the patterns that we see here in Grenada.</p> <p>2 Q The next item this is on page 9 after skin</p> <p>3 problems is that chemicals from Koppers are known to</p> <p>4 cause cancer, lung disease, gastrointestinal disease,</p> <p>5 liver disfunction, autoimmune diseases, kidney problems,</p> <p>6 reproductive disorders, miscarriages, birth defects,</p> <p>7 premature birth, low birth weight and many other diseases</p> <p>8 and poor health.</p> <p>9 Other than the low birth weight and premature</p> <p>10 birth, which of these problems does Derion have now?</p> <p>11 A I think we're talking about the neurologic</p> <p>12 problems I alluded to, but I don't think that was on the</p> <p>13 list you just read, but I'd say in the next paragraph I</p> <p>14 talk about his neurological problems.</p> <p>15 Q So Derion doesn't have cancer currently?</p> <p>16 A Correct.</p> <p>17 Q Or lung disease or gastrointestinal disease?</p> <p>18 A Well, he has wheezing, shortness of breath, dry</p> <p>19 cough, productive cough, so I think he does have chronic</p> <p>20 bronchitis and probably a touch of asthma.</p> <p>21 Q Does he have gastrointestinal disease?</p> <p>22 A I didn't identify any GI complaints.</p> <p>23 Q Does he have liver dysfunction?</p> <p>24 A Not that I identified.</p> <p>25 Q Does he have kidney problems?</p> <p style="text-align: right;">165</p>	<p>1 A Yes.</p> <p>2 Q Lack of concentration, that was reported by the</p> <p>3 mother?</p> <p>4 A Yes.</p> <p>5 Q Decreased short-term memory was reported by the</p> <p>6 mother?</p> <p>7 A Yes.</p> <p>8 Q Decreased long-term memory was reported by the</p> <p>9 mother?</p> <p>10 A Yes.</p> <p>11 Q Slurred speech, did you actually hear him</p> <p>12 speak?</p> <p>13 A He never really spoke. When I was talking to</p> <p>14 him, he would barely respond to commands. When I asked</p> <p>15 him to sit on the table or asked him to keep his eyes</p> <p>16 open, he wouldn't even do that. He's not very</p> <p>17 communicative, so I did not observe any speech at all.</p> <p>18 Q Next is respiratory problems, and you have a</p> <p>19 list of respiratory problems, and those you believe were</p> <p>20 caused by his exposure to PAHs or dioxins?</p> <p>21 A Yes. There is no doubt that prematurity, as I</p> <p>22 stated, increases the risk of having respiratory</p> <p>23 conditions later, but the interaction between the</p> <p>24 environmental pollution with his premature lung and</p> <p>25 respiratory system, I think the combination is why he has</p> <p style="text-align: right;">167</p>
<p>1 A Not that I identified.</p> <p>2 Q He doesn't have a reproduction disorder, does</p> <p>3 he?</p> <p>4 A No.</p> <p>5 Q Obviously, he's not prone to miscarriage;</p> <p>6 correct?</p> <p>7 A Correct.</p> <p>8 Q In the neurological complaints, you've</p> <p>9 indicated blurred vision, eye irritation, headache, loss</p> <p>10 of balance, irritability, lack of concentration,</p> <p>11 decreased short-term memory, decreased long-term memory,</p> <p>12 lack of coordination and slurred speech; correct?</p> <p>13 A Yes.</p> <p>14 Q Those are all reported by his mother?</p> <p>15 A Yes. And also they were observed. When he</p> <p>16 tried to stand with his feet together, he tended to fall.</p> <p>17 He was very poorly coordinated and that's something I</p> <p>18 observed in my physical exam.</p> <p>19 Q How do you know he has blurred vision?</p> <p>20 A That was reported by his mother.</p> <p>21 Q Same with eye irritation?</p> <p>22 A Yes.</p> <p>23 Q Headaches were reported by his mother?</p> <p>24 A Yes.</p> <p>25 Q Irritability was reported by the mother?</p> <p style="text-align: right;">166</p>	<p>1 these continuing problems.</p> <p>2 Q But for exposure to PAHs, penta and dioxins, do</p> <p>3 you think Derion Griffin would have the same respiratory</p> <p>4 symptoms?</p> <p>5 A I don't think he'd have the same respiratory</p> <p>6 symptoms, as a result of his prematurity, which I think</p> <p>7 is a result of his exposures. In a way it's kind of</p> <p>8 going in a circle.</p> <p>9 But you're saying in the absence of his</p> <p>10 exposure post-delivery, after coming home from the</p> <p>11 hospital?</p> <p>12 Q Right. Would he have these problems?</p> <p>13 A I don't know. It's difficult to say whether</p> <p>14 prematurity alone would have caused any of his current</p> <p>15 problems. It's possible.</p> <p>16 Q But children who are premature and don't live</p> <p>17 near the Koppers plant also have asthma and respiratory</p> <p>18 problems?</p> <p>19 A Yes, they do.</p> <p>20 Q Is childhood asthma something of an epidemic in</p> <p>21 this country?</p> <p>22 A Yes.</p> <p>23 Q Why is that, do you know?</p> <p>24 A I think most scientists who are studying it</p> <p>25 believe it's due to the environmental pollutants that we</p> <p style="text-align: right;">168</p>

1 have in our environment. Studies done over the last five
2 years by Dr. Peters at U.S.C. clearly demonstrate that
3 the increased rate of asthma in the Los Angeles basin is
4 related to the oxidant load present in their
5 neighborhood.
6 Q So is it possible for you to opine that Derion
7 Griffin would have had the same respiratory problems that
8 he does if he had not lived in the neighborhood he does?
9 A Well, if he lived in east L.A., one of the
10 polluted neighborhoods, he might have. But even then the
11 rate is 12, 15 percent in high-risk neighborhoods.
12 But he lived in Grenada, Mississippi. If he
13 lived in a non-polluted area, he probably would not have
14 a high oxidant load because Grenada does not have a lot
15 of smog buildup of pollutants like we do here in
16 Los Angeles.
17 So, I mean, each person has their own unique
18 situation. But the epidemic of asthma you talk about is
19 more of a problem where there is actually some
20 identifiable causes. It's not happening by magic and
21 there is a reason. Same with Derion. He and his
22 neighbors are so sick and it's because of a reason.
23 Q I have a nephew that lives in Hinckley,
24 Illinois, which is in the middle of corn fields and
25 soybean fields and he has childhood asthma.

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1 Child get asthma irrespective of exposures;
2 correct?
3 A Well, you just described a fairly polluted
4 environment. I would not say living in the middle of a
5 cornfield was free of all chemical agents by any means.
6 My cousin farms a few thousands acres of corn in the
7 middle of Nebraska and they use a lot of chemicals on
8 those cornfields.
9 Q Are those the sort of children that get
10 childhood asthma, children in agricultural areas?
11 A It certainly happens, yes.
12 Q And children that live in cities --
13 A They get it for other reasons.
14 Q How about the suburbs?
15 A Not everybody has asthma, and there is some
16 interaction there. Cause and effect.
17 Q In the time you have left -- you want to leave
18 at 4:00 o'clock?
19 A Right.
20 Q I want to switch to another subject and try to
21 move into something else.
22 In your report you talk about dioxin exposures.
23 You did blood tests on 29 people for dioxin?
24 A That's correct.
25 Q And then you report in, I believe, table 5 the

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1 exposed mean dioxin and the unexposed mean dioxin for
2 several individual congeners; is that correct?
3 A Yes.
4 Q Where did the unexposed mean dioxin levels you
5 report on table 5 come from?
6 A I believe these were Greenville, Mississippi,
7 if I remember correctly. I'm pretty sure that's what it
8 is.
9 Q On another point in your report, and I know
10 you're looking for it, and this is page 83, you mentioned
11 controls Dallas equals 200.
12 A That's one set of controls, and I'm trying to
13 remember which control values I used here. Page 83 --
14 that's pentachlorophenol. We didn't do pentachlorophenol
15 in the Greenville people. We did dioxins and furans on
16 them. This Dallas control value is for PCP,
17 pentachlorophenol. This is Greenville, Mississippi where
18 we did -- I think we did a total of 30 people.
19 Q Have you produced the results for the unexposed
20 controls, that is the lab reports that show what the
21 various detections were --
22 A I think we redacted the names but I think we
23 gave you the data from -- this was done at AXYS
24 Laboratories.
25 Q That's the AXYS lab report?

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1 A Yes.
2 Q Are you familiar with a scientist named Arnold
3 Schecter?
4 A Yes.
5 Q He has done some work on identifying levels of
6 dioxin in people's blood; is that right?
7 A Yes.
8 Q And, in fact, you have relied on Dr. Schecter's
9 work?
10 A He's one of the co-authors of our Columbus
11 paper.
12 Q Let me mark this deposition Exhibit 2.
13 (Defendants' Exhibit 1 and 2 was marked for
14 identification by the court reporter.)
15 BY MR. HOPP:
16 Q Let me show you what's marked deposition
17 Exhibit 2, a paper authored by Dr. Schecter.
18 Have you seen deposition Exhibit 2 before?
19 A Have I seen this paper before?
20 Q Yes.
21 A This is a poster he presented at -- I think the
22 dioxin meetings back in probably '99 or something like
23 that. The values here are from -- well, let's see. The
24 German values were '89 and '94 and the U.S. values were
25 up through '96, it looks like, blood samples.

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1 Q Are you familiar with what Dr. Schecter did to
2 obtain his U.S. values, where he went and got the blood
3 and how many people contributed to the blood --
4 A Does he say here?
5 Q He does but I was wondering if you know the
6 story.
7 A Well, he collected blood samples from patients
8 all over the place. I don't remember where he did this
9 one. He writes that "We collected and pooled samples
10 from a young population, N=100, and an older population,
11 N=100. These were from left-over samples at a Texas
12 hospital which were collected for this study anonymously
13 and which were ready to be discarded after the medical
14 testing had been performed."
15 This is the 200 patients that we used as a
16 comparison group for our study in Columbus.
17 Q You've seen these numbers before and know about
18 the set of 200 people who contributed to the pooled blood
19 samples that Dr. Schecter used?
20 A Yes, I did.
21 Q Was Dr. Schecter's purpose, to the extent you
22 understand it, to obtain a sort of control value for
23 various congeners of dioxins in people's blood in the
24 United States?
25 A Yes, that's the purpose.

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1 Q Was the idea, with the Dallas control
2 population, that they were unexposed or were unknown
3 exposure levels?
4 A I think unknown exposure. We know they were
5 coming to the hospital and they were sick or most likely
6 were sick with something, otherwise they would not have
7 been in the hospital having blood drawn, and they were
8 what I call a sick population.
9 Q And you used these numbers -- Dr. Schecter's
10 numbers from his 2000 paper in studies you've done and
11 papers you've written on dioxin exposure; is that right?
12 A Yes.
13 Q You've reported this Dallas cohort as your
14 control population?
15 A Yes.
16 Q Do you have any sort of special access to Dr.
17 Schecter's raw data?
18 A No. He just supplied me with the numbers, the
19 pooled sample numbers.
20 Q You rely on Dr. Schecter's published numbers;
21 is that right?
22 A Well, I don't -- he sent me the table with the
23 numbers and I didn't go check and make sure they're the
24 same as the published paper.
25 Q You don't know whether Dr. Schecter's

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1 unpublished values are the same as what we see in the
2 published paper?
3 A Well, I can probably dig around and find out.
4 If you're talking about the poster that he made --
5 Q Exhibit 2.
6 A Whether those are the same as he gave me
7 before?
8 Q Right.
9 A I don't know.
10 Q Is there any reason he would give you one set
11 of numbers and published a different set?
12 A I don't think he would have, but I haven't
13 checked.
14 Q Let's mark this as deposition Exhibit 3.
15 (Defendants' Exhibit 3 was marked for
16 identification by the court reporter.)
17 BY MR. HOPP:
18 Q Do you recognize Exhibit 3?
19 A Yes.
20 Q What is deposition Exhibit 3?
21 A Well, it's the paper we presented I believe in
22 2004.
23 Q You and Dr. Schecter and Olaf Paepke, among
24 others, authored this paper?
25 A That's correct.

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1 Q And does this paper relate to your study of
2 health effects or at least dioxins and DNA adduct levels
3 for the Grenada, Mississippi cohort?
4 A Yes.
5 Q In 2004 when you presented this paper, you had
6 a list of exposed residents and we see No. 29 and that's
7 the number you got from Grenada; right?
8 A Yes.
9 Q And the report has mean concentration range?
10 A Yes.
11 Q Then we have the Controls-Dallas, N=200?
12 A Yes.
13 Q Those are Dr. Schecter controls?
14 A Yes.
15 Q Let's look at deposition Exhibit 1, table 5
16 from your report.
17 Why are the control values different?
18 A I said they're from Greenville, Mississippi.
19 Q So you published a paper with Dallas controls
20 and then in your expert report, in this case, you used
21 Greenville, Mississippi controls; correct?
22 A That's correct.
23 Q Why?
24 A Well, because as Dr. Schecter and I reported
25 this month in the Journal of Occupational and

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1 Environmental Medicine, the results in 2005 were
2 significantly lower in general population than in 1998,
3 and that 6-year difference means that you've got to
4 redraw and remeasure.
5 These Greenville, Mississippi patients were
6 done contemporaneously or closer in time, in 2004, the
7 same year we did the controls.
8 Number two, they were done in a Mississippi
9 town similar in size and other factors to Greenville to
10 make a better control.
11 Number three, we had questionnaire data on
12 these people and we knew they didn't have any reason to
13 have high values and didn't work in a place or live in a
14 place where they have high dioxins so they'd be a better
15 control.
16 The values are lower. The TCDD is not
17 detectable. Many of the values are lower, as we just
18 reported in the JOEM, reflecting the fact that there is a
19 decline in the general population of dioxin levels.
20 Q In the JOEM, when you reported the general
21 decline in the dioxin levels, would you say that in the
22 last five years the general dioxin levels in the U.S.
23 have declined by half?
24 A It's down by something in that order of
25 magnitude or greater. It depends how far back you go. I

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1 think we just reported they're down 83 percent from what
2 they were 20, 25 years ago.
3 Q Now, Greenville, Mississippi, aren't you
4 involved in litigation in Greenville?
5 A Yes.
6 Q The Platte chemical case?
7 A Yes.
8 Q How were the Greenville, Mississippi controls
9 selected?
10 A Originally, one of the other experts in the
11 case wanted to do dioxin levels in Greenville because he
12 suspected there might be dioxins present, and we picked I
13 think about 20 people who lived close to the Platte
14 Chemical plant.
15 Then we had them identify a friend or relative
16 who lived somewhere in Greenville, but far away from the
17 plant who was otherwise the same age, sex, social
18 economic level, and we matched them with the 20 people.
19 Then we took those two groups and divided them
20 into ten and pooled ten samples, and ran two samples of
21 our non-exposed Platte Chemical and a group of 20 pooled
22 groups of ten who lived close to Platte Chemical.
23 The results in all four groups were identical
24 and gave these values, and so we assumed there was no
25 dioxin exposure going on in this group and, if you look

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1 at the Dallas values and the decline over time, it fits
2 nicely. It seems like very logical -- the decline is not
3 great but continuing.
4 Q So the Platte Chemical plaintiffs chose their
5 own controls?
6 A We identified people who matched them and gave
7 them questionnaire and made sure we knew everything about
8 them. We asked them to identify someone similar to
9 themselves but did not live in that neighborhood.
10 Q Have you ever done that in another case?
11 A It's a common way of doing controls.
12 Q Have you ever done it in any other case?
13 A No. We did it at the suggestion of our
14 epidemiologist.
15 Q Who is that?
16 A Anderson.
17 Q What's the first name?
18 A Pamela Anderson.
19 MR. HOPP: We can mark this as 4.
20 (Defendants' Exhibit 4 was marked for
21 identification by the court reporter.)
22 BY MR. HOPP:
23 Q Do you recognize deposition Exhibit 4?
24 A Yes.
25 Q What's deposition Exhibit 4?

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1 A That's our exposure assessment paper for
2 Columbus, Mississippi.
3 Q In your exposure assessment for Columbus,
4 Mississippi, you also report control values for TCDDs?
5 A Yes.
6 Q And various other congeners of dioxin; correct?
7 Look at table 2, page 104.
8 A Right.
9 Q And you rely on Dr. Schecter's Dallas cohort;
10 is that correct?
11 A Yes. That's what it says here. We utilized
12 the Dallas controls as one of the comparisons we made.
13 Q And Dr. Schecter's paper, which we marked as
14 deposition Exhibit 2, was published prior to your
15 exposure assessment published in 2003; is that correct?
16 A Correct.
17 Q Let's flip to Dr. Schecter's paper, deposition
18 Exhibit 2, and leave Exhibit 4 open to page 104.
19 A All right. You want to look at table 5 in this
20 one?
21 Q Table 2 in both documents. Now, in Dr.
22 Schecter's paper, the 2000 paper, he reports two
23 different values for the Dallas cohort?
24 A Yes.
25 Q And looking at specifically TCDD, he reports

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45 (Pages 177 to 180)

1 4.3 and 4.2.
2 Do you see that?
3 A Yes.
4 Q And your paper from 2003, you report on table
5 2, General Population Dallas; Schecter 2000, N=200, a
6 value of TCDDs of 2.6?
7 A Yes.
8 Q How did you go from Dr. Schecter's values to
9 your values?
10 A I don't know. I don't see how you can combine
11 those to get to 200 and have a value to be lower, and I
12 have to ask Dr. Schecter why the discrepancy.
13 I do have an explanation, which I think may be
14 that the 200 people we got were different than the 200
15 people in this group, and that's one possibility.
16 Q This is the second Dallas control group of 200
17 people?
18 A Yes. In this case he had a hundred young
19 people and a hundred older people, and in this group he
20 didn't make that distinction of age and lumped them all
21 together, I suspect. I'd have to check with him but I
22 suspect it's two different groups he's pooled.
23 He has a deal with the lab there at UT
24 Southwestern and he can get discarded blood fairly
25 easily, so when he pools it, he sends it to Dr. Paepke

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1 in Germany and he runs it for him. And just looking at
2 these numbers that are consistently lower, I would think
3 they were probably drawn at a later time.
4 Q So you think --
5 A That's -- I have to ask him.
6 Q So you think at some other point in 2000, Dr.
7 Schecter developed another cohort of 200 people that he
8 had evaluated?
9 A Yes. In other words, the Schecter references
10 that I give here -- I have to ask him about that. I
11 don't know how to explain the discrepancy at this moment.
12 Q What's the Schecter reference that you give in
13 your 2000 paper?
14 A There are several Schecter references but none
15 of them are 2000.
16 Q So you don't cite Dr. Schecter's 2000 paper in
17 your 2003 paper in environmental research?
18 A No. This was personal communication. I'm
19 guessing now that these are values he collected in 2000,
20 and others were collected in -- it looks like 1996, four
21 years before.
22 Q Somewhere in your office, in your possession,
23 do you have a file of materials that provided the backup
24 for your 2003 paper?
25 A Yes.

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1 MR. HOPP: And we'll send a request, but I'd
2 like to make a request on the record that we at least get
3 that bit of it. I'd like Dr. Schecter's set of numbers.
4 I'd like to see those.
5 Let's mark this Exhibit 5.
6 (Defendants' Exhibit 5 was marked for
7 identification by the court reporter.)
8 BY MR. HOPP:
9 Q Deposition Exhibit 5, can you tell me what it
10 is?
11 A Let's see when did we do this one. I think
12 this is a paper we presented at the dioxin meeting 2001.
13 I'm not sure about that, but I believe we did. It's the
14 same values we had in the paper.
15 Q Let's look at that. There is no table number.
16 The table in deposition Exhibit 5 which list dioxin
17 congeners --
18 A Yes.
19 Q Again, you have control values, General
20 Population Dallas; Schecter 2000, and you have numbers
21 different from the numbers in the Schecter 2000 paper.
22 Do you see that?
23 A Yes, these are the same ones that we had in our
24 paper we were just looking at.
25 Q They're the same for the 2003 paper, except for

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1 one. Let's look at control value for 1,2,3,7,8 PeCDD.
2 Do you see that?
3 A Yes. 6.3?
4 Q I'm looking at the control value in the 2000
5 paper -- in the 2003 paper, deposition Exhibit 4, the
6 control value is point 05?
7 A For the penta?
8 Q 2,3,7,8 penta.
9 A Yes. 6.3 for the control value -- same on
10 both.
11 Q We're looking at two different numbers. Let
12 me --
13 A Just point it out --
14 Q This number here. Do you see that?
15 A All right.
16 Q It's see point 05 on the 2003 paper, and in
17 your paper that we have designated Exhibit 5 it is point
18 5, so we're off by an order of magnitude; correct?
19 A That's right. But it's probably a typo because
20 all the other numbers, including the TEQs, are the same
21 and it's just a typo.
22 Q Which document is correct?
23 A Oh, I suspect it's the point 5 rather than
24 point 05. The detection limits are such that it's not
25 likely to be point 05. I think point 5 is the correct

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1 one. The TEQ value or the TEF value really is point 05
2 and someone just transposed the number.
3 Q You think someone made a transcription error?
4 A I think so. If you go down to the total TEQs
5 and the other totals, they're the same. Yes -- if it was
6 an error, it was carried through -- it's just a typo.
7 Q If would change the TEQ?
8 A Yes, if it was anything other than that.
9 (Defendants' Exhibit 6 was marked for
10 identification by the court reporter.)
11 BY MR. HOPP:
12 Q You have deposition 6 in front of you?
13 A Yes.
14 Q What is that?
15 A A presentation that I made in Berlin in
16 September of 2004.
17 Q Look at table 1, page 2844.
18 A Okay.
19 Q You have your exposed population control and
20 then a control equals 100 population.
21 Do you see that?
22 A Yes.
23 Q Where did the control values come from in the
24 paper we have as Exhibit 6?
25 A Well, this was yet a different set published by

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1 Paepke. He gave us, along with the reports in this case,
2 he gave us this. This is his reference population for
3 that set of bloods. So we didn't use the same control
4 values. They're similar and a little higher on the TCDD
5 but similar, in general, to what we've had here.
6 Q So the citation -- and correct me if I'm wrong
7 -- the citation for the control values in deposition
8 Exhibit 6 -- I believe it's footnote 5 -- which is
9 Schecter, A.J. Paepke O. And Piskac A.L. (2000)
10 Organohalogen Compounds 48,68-71.
11 Do you see that?
12 A Yes. That's the citation we were talking about
13 earlier, isn't it?
14 Q Deposition Exhibit 2 --
15 A This is the older and definitely out of date
16 values but again it doesn't quite match.
17 Q Doesn't match up at all, does it?
18 A No, it doesn't.
19 Q Why is that?
20 A Like I said, these values were from Paepke, and
21 he gave us these values as a reference range. So I
22 suspect, given how high they are, they're German values.
23 Q Do you have somewhere a file of backup
24 materials for your paper on Persistent Organic Pollutants
25 in the 9/11 World Trade Center rescue workers?

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1 A Yes.
2 Q I'd like a copy of the backup for the control
3 values for that paper, and I'll sent a written request.
4 Why in 2004 were you reporting 5-year-old
5 control population data in your paper on the 9/11 World
6 Trade Center rescue workers and reporting more recent
7 data for the Greenville -- Grenada population?
8 A I got the Greenville data after we submitted
9 this paper, so I didn't have the Greenville controls for
10 the firemen, and we didn't have a good control for the
11 firemen, anyway, and we used -- given the fact it
12 references this document, but they don't match, and what
13 I see here is values that are very similar to what is
14 listed here -- they're in the same order of magnitude but
15 not identical.
16 Q They're different?
17 A The TEQ's are quite high.
18 Q In the unexposed population?
19 A I know what it is. The PCBs are not done here.
20 This is Paepke's normals and this reference should
21 reflect Paepke's -- as I said, these are normals he sent
22 along with the reports on these firemen, and that's --
23 well, I have to dig into this and figure out exactly what
24 he did here, but I believe that the controls were not
25 from this 2000 paper.

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1 Q Once again, I'd like to see the control data
2 that Dr. Paepke supplied to you.
3 A These pages do refer to this but the numbers
4 don't match.
5 Q The citation is to Dr. Paepke's and Dr.
6 Schecter's 2000 paper?
7 A Let's see. If we look over here to -- no, it
8 still doesn't match. I'll get to the bottom of this.
9 Q In your table number 5 for the Grenada cohort,
10 your mean control value for TCDD is non-detected?
11 A Yes.
12 Q For clarity of the record, that means in
13 whatever lab report you got back on your controls there
14 was no TCDD detected in anybody's blood?
15 A Yes.
16 Q Have you ever seen an absence of TCDDs in a
17 sample of 29 people?
18 A Well, there is four pooled samples, and this is
19 our unexposed controls in Greenville, and it depends what
20 your detection limits are and they're getting -- as I
21 said, PCB levels are dropping significantly in the United
22 States and getting close to detection level and, even
23 though I've not seen it before, I believe it's position.
24 Q What was the detection limit you used for your
25 control population that you see reflected on --

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1 A I have to get out the reports from the lab to
2 answer that. I don't have that information.
3 Q We'll look at that information tomorrow and
4 we're almost out of time for today. If you remember,
5 it's something I'd like you to pull?
6 MR. HOPP: This is Exhibit 7.
7 (Defendants' Exhibit 7 was marked for
8 identification by the court reporter.)
9 BY MR. HOPP:
10 Q Do you recognize deposition Exhibit 7?
11 A Well, it looks like a draft or a manuscript of
12 the paper we submitted. I don't know if it's the one
13 published or an earlier version.
14 Q The document we see set forth is deposition
15 Exhibit 7. Do you know if this was in effect your expert
16 report in the Columbus, Mississippi litigation? Is this
17 your expert report?
18 A No. This is a manuscript I think that we
19 submitted to one of the journals of the paper.
20 Q Do you believe then that -- here we go. It
21 says to send all page proofs to James Dahlgren, M.D.
22 Do you see that?
23 A Yes.
24 Q That's a sort of language you have on a
25 document you submit for publication?

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1 A Yes.
2 Q Was Exhibit 7 ever rejected for publication?
3 A Well, we sent it to Occupational and
4 Environmental Medicine and they rejected it, and then
5 sent it to Environmental Research and they published it.
6 So I don't remember from memory if this is what we sent
7 to Occupational and Environmental Medicine or not.
8 Q You received reviewer's comments and a
9 rejection from Environmental Research?
10 A No. From Occupational and Environmental
11 Medicine, formerly the British Journal of Industrial
12 Medicine.
13 Q And Exhibit 4 is the second paper, which was
14 then submitted to Environmental Research?
15 A Right. Well, the paper that got published.
16 Q You added an author in deposition Exhibit 4
17 that we don't see on Exhibit 7, Harpreet Takhar?
18 A Yes.
19 Q Who is he?
20 A An epidemiologist who works with me.
21 Q Does he work for your company?
22 A Yes.
23 Q You employee him?
24 A Yes.
25 Q What was his role, if any, in the version we

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1 see reflected in deposition Exhibit 4?
2 A Well, he helped us write the paperwork on it,
3 and I don't remember specifically what he did but he
4 helped us with it.
5 Q Were there a lot of changes made between the
6 versions we see in deposition 7 and the version we see in
7 deposition 4?
8 A No. I think there were some changes, but I
9 don't know if I'd characterize them as many but there
10 were some changes, and you can read the two papers and
11 see they're substantially similar but probably there are
12 some differences.
13 Q Is it standard practice to submit a paper to a
14 journal where the scientist is also a peer reviewer?
15 A You mean peer review your own paper?
16 Q No. You're on the list of peer reviewers for a
17 journal. Is it standard practice to submit papers to
18 that journal?
19 A Sure. We do that all the time.
20 Q At the time your paper was published in
21 Environmental Research, were you a peer reviewer for
22 Environmental Research?
23 A No. He asked me to be a peer reviewer after
24 that.
25 Q And who is the publisher of Environmental

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1 Research? I mean, who is the editor?
2 A The editor is Ellen Silbergeld.
3 Q Where does he work?
4 A She works at Johns-Hopkins.
5 Q Ellen Silbergeld?
6 A Ellen Silbergeld.
7 MR. HOPP: It's 4:00 o'clock on the nose.
8 Shall we break?
9 THE WITNESS: Yes.
10 MR. HOPP: I'm ordering this written and I'd
11 like the original.
12 MR. LUNDY: A copy, yes.

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PENALTY OF PERJURY

I hereby declare I am the deponent in the within matter; that I have read the foregoing proceeding and know the contents thereof and I declare that the same is true of my knowledge except as to the matters which are therein stated upon my information or belief, and as to those matters I believe it to be true.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the _____ day of _____, 2005, at _____, California.

JAMES DAHLGREN, M.D.

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I, VIRGINIA PETERAITIS, a certified shorthand reporter for the State of California, do hereby certify:

That prior to being examined the witness named in the foregoing deposition, was by me duly sworn to testify the truth, the whole truth, and nothing but the truth pursuant to Section No. 2093 of the Code of civil Procedure;

That said deposition was taken before me pursuant to notice, at the time and place therein set forth, and was taken down by me in shorthand and thereafter reduced to typewriting via computer-aided transcription under my direction;

I further certify that I am neither counsel for, nor related to, any party to said action, nor in anywise interested in the outcome thereof.

IN WITNESS WHEREOF, I have hereunto subscribed my name this ____ day of _____, 2005.

VIRGINIA PETERAITIS
CSR No. 6205

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